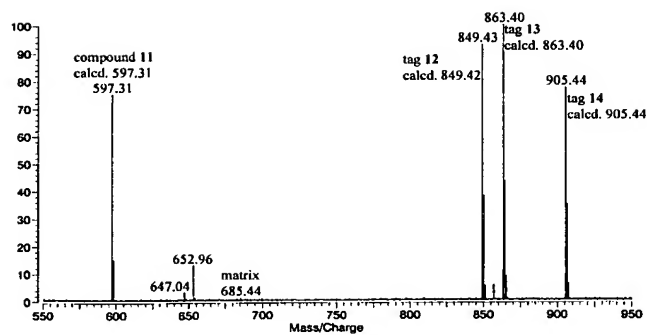
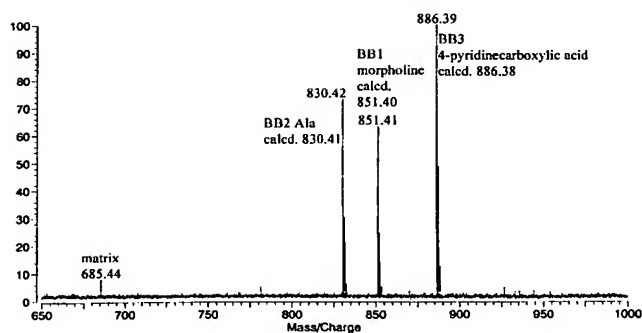


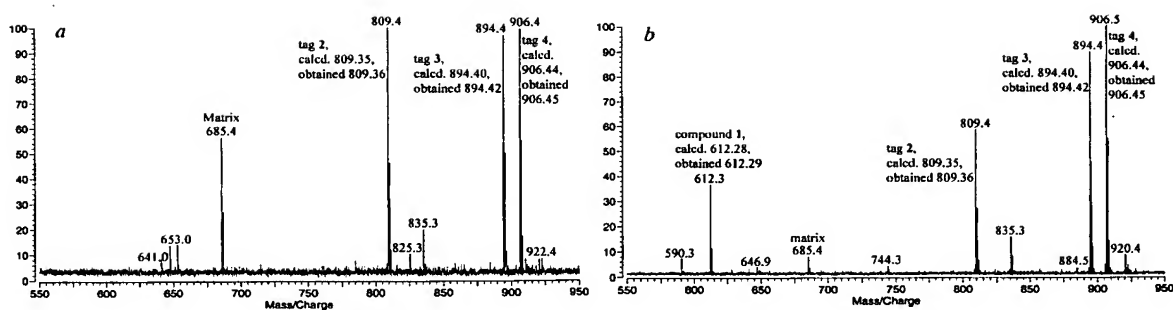
**Figure 1.** Scheme showing the encoding and decoding mechanisms of the present invention.



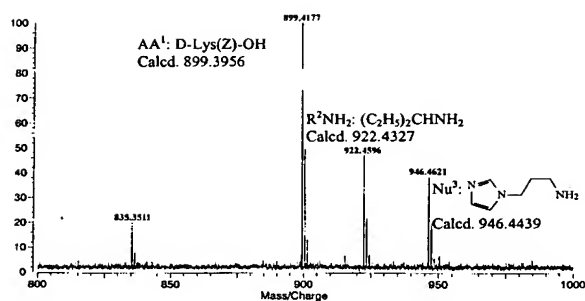
**Figure 2.** MALDI-FTMS spectrum of single-bead analysis for the resin containing library compound 11 and coding tags 12-14. This model compound was synthesized on beads with a cleavable linker on both the outer layer and inner core.



**Figure 3.** MALDI-FTMS decoding spectrum for compound 15 from the library of Example 5, screening against streptavidin.



**Figure 4.** Comparison of MALDI-FIMS spectra of single-bead analysis for the resin containing library compound 1 and coding tags 2-4 of Example 6. *a*) Non-cleavable scaffold linker; *b*) Cleavable scaffold linker.



**Figure 5.** A typical MALDI-FTMS decoding spectrum of streptavidin ligands from Example 6.